BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Health and Social Care Pearson BTEC International Level 3 Foundation Diploma in Health and Social Care Pearson BTEC International Level 3 Diploma in Health and Social Care Pearson BTEC International Level 3 Extended Diploma in Health and Social Care Pearson BTEC International Level 3 Extended Diploma in Health and Social Care (Health Studies)
Unit number and title	**Unit 11: Scientific Techniques for Health Science**
Learning aims	Learning aim A: Understand how a health-related laboratory deals with samples sent for analysis Learning aim B: Carry out investigations using techniques similar to those in a health-related laboratory Learning aim C: Carry out investigations using light microscopes similar to those in a health-related laboratory.
Assignment title	**Working in a health-related laboratory**
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have been offered a place at the university of your choice to study for a healthcare science degree with the intention of qualifying as a Healthcare Science Practitioner. To improve your knowledge of the area, you have decided to investigate the different techniques and procedures that are used in Health Science.
Task 1	You need to produce a report that justifies the procedures used in a health-related laboratory when they are analysing a sample and assesses whether the health and safety requirements are adequate to deal with a sample that is pathogenic. In your report, you must show that you are aware of the level of danger that samples can present. You must also demonstrate your understanding of the need to follow health and safety regulations correctly at all times.
Checklist of evidence required	A report on laboratory procedures.

Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
A.D1	Justify the procedures used in a health-related laboratory for sample analysis.
A.M1	Assess whether the health and safety requirements of a chosen health-related laboratory are adequate to deal with a pathogen sample.
A.P1	Explain the procedures for a sample sent to a health-related laboratory.
A.P2	Explain how in vitro and in vivo diagnostic tools are used safely in a health-related laboratory.
Task 2	You need to write a report that justifies the techniques you have performed, and analyses the outcomes of your investigations, relating them to the work done in health-related laboratories. You need to include an analysis of the advantages of using photomicrographs compared to slides fixed by a temporary fixing method. In your laboratory notebook you to need to report on the following practical techniques you have performed: • an aseptic technique that involves accurate measurement of micro-organisms • the correct preparation of standard solutions • food analysis techniques to measure lipid and acid content • an investigation to accurately measure the effect of an antiseptic or disinfectant • staining cells and temporary fixing on a slide • observations of cells under at least two magnifications. As well as your laboratory notebook you need to ensure your tutor/assessor observes you successfully carrying out the techniques.
Checklist of evidence required	• A report on the techniques demonstrated • A laboratory notebook reporting the techniques carried out. • Photographic evidence/observation records of the successful completion of the techniques.

Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
BC.D2	Justify the laboratory techniques used for practical investigations in meeting desired outcomes.
BC.D3	Evaluate the usefulness of the procedures and techniques used in health-related laboratories in providing a diagnosis for health professionals to work with.
B.M2	Analyse the outcomes of practical investigations and relate them to work done in a health-related laboratory.
C.M3	Analyse the advantages of using photomicrographs compared to slides fixed using a temporary fixing method.
B.P3	Perform and report on an aseptic technique involving accurate measurement of micro-organisms.
B.P4	Perform and report on an experiment involving the correct preparation of standard solutions.
B.P5	Perform and report on food analysis techniques to accurately measure lipid and acid content.
B.P6	Perform and report on a practical investigation to accurately measure the effect of antiseptic/ disinfectant.
C.P7	Perform a practical investigation involving the staining of cells and their temporary fixing on a slide.
C.P8	Record observations of a prepared slide of cells seen under two different magnifications of a microscope.

Sources of information to support you with this Assignment	**Website** https://www.who.int/publications/i/item/9789240011311